



Summary of Fishery Surveys Lake of the Falls, Iron County, 2015

Lake of the Falls is a medium hard water drainage lake with predominantly sand, rubble, gravel and muck substrates. It has a surface area of 338 acres, 6.7 miles of shoreline, and a maximum depth of 20 feet. The Mercer DNR Fisheries Management Team conducted the following fishery surveys on Lake of the Falls in 2015: an early-spring fyke netting survey targeting the walleye population, an early-spring electrofishing survey to complete a walleye population estimate, a late-spring electrofishing survey to assess bass and panfish populations, and a fall recruitment survey to assess walleye natural reproduction. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society, and reflect the percentage of the adult population sampled larger than the specified size.

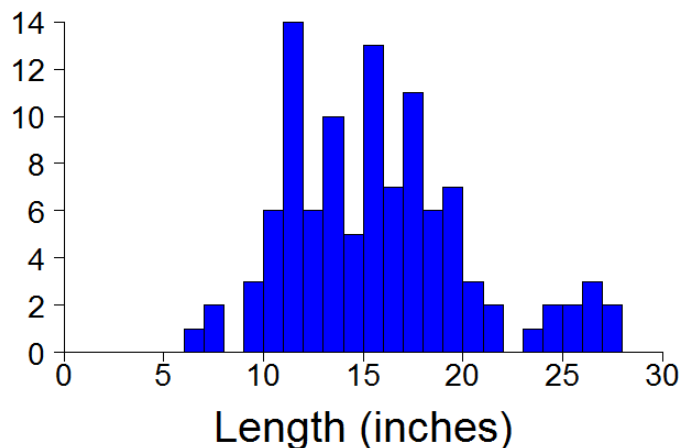


Walleye Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 15 in.)	59
Preferred (> 20 in.)	15
Memorable (> 25 in.)	7

Fish Captured

Walleye



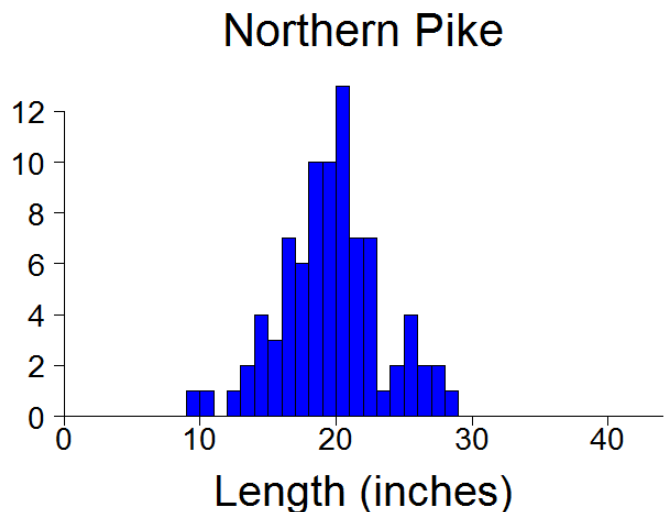
We captured a total of 93 individual walleyes during our early-spring netting period and the early-spring electrofishing survey at rates of 2.0/net-night and 3.3 /mile respectively. Walleyes ranged in length from 6" - 27.7" and averaged 16.5". Using mark-recapture techniques, the population estimate for adult walleyes in 338-acre Lake of the Falls was 234 fish, or 0.7 fish per surface acre of water. It should be noted that this estimate is for the adult population only. We also sampled many juvenile fish that were not included in this population estimate that should be recruiting to the adult population in the coming years. While juvenile walleyes are present, the fall recruitment survey did not detect any natural recruitment during 2015. Adult walleyes are currently present at low density, although the population size and age structure shows signs of improvement for the future.



Northern Pike Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 21 in.)	33
Preferred (> 28 in.)	1
Memorable (> 34 in.)	0

Fish Captured



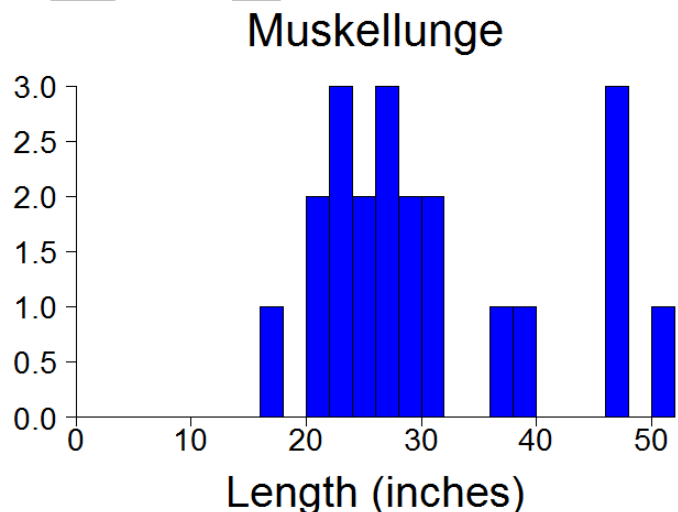
During our early-spring netting efforts, a total of 63 individual Northern pike were surveyed at a rate of 3.2/net night. Pike ranged in length from 12.3" – 28.6" with an average size of 20.2". These results suggest that northern pike are currently present at low to moderate densities and most individuals are relatively small.



Muskellunge Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 30 in.)	40
Preferred (> 38 in.)	25
Memorable (> 42 in.)	20

Fish Captured

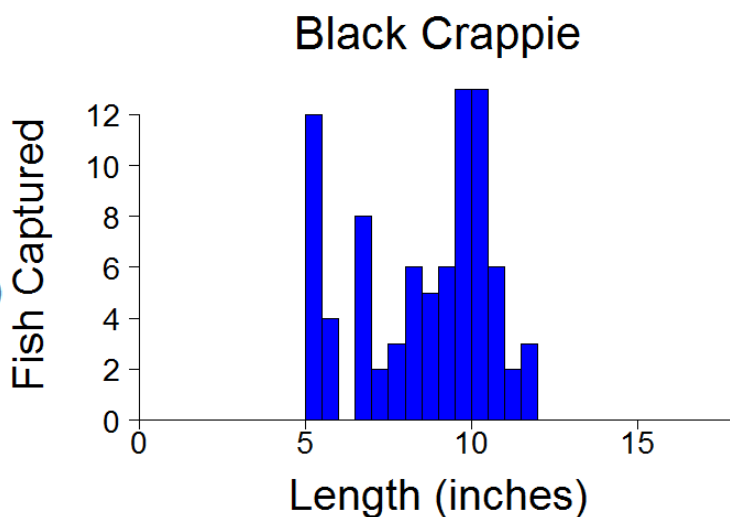


Although none of the efforts conducted during the 2015 survey efforts targeted muskellunge, during spring and summer sampling efforts we sampled a total of 21 individual muskellunge ranging from 16.6" - 50.5" inches. The early spring electrofishing run sampled muskellunge at a rate of 2.9/mile. Although no young of the year muskellunge were sampled during the fall recruitment survey, the population size structure suggests that consistent natural recruitment is occurring. These data suggest that muskellunge are currently present in moderate - high densities, the population exhibits a balanced size structure, and good trophy potential exists in this fishery.



Black Crappie Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 8 in.)	65
Preferred (> 10 in.)	29
Memorable (> 12 in.)	0

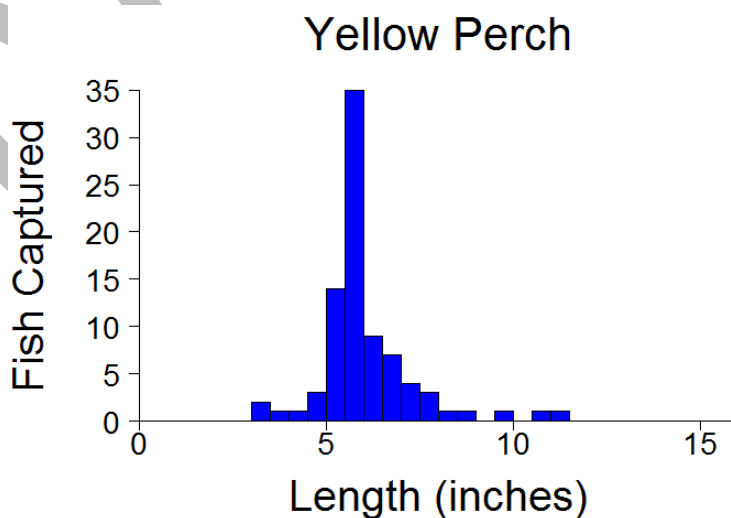


The early-spring fyke netting survey sampled a total of 285 black crappies at a 14.3/net-night. A sub-sample of crappies was measured and ranged in length from 5.7" – 11.8" and averaged 8.5". These results suggest that crappies are present in moderate densities, and the population has a balanced size structure.



Yellow Perch Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 8 in.)	6
Preferred (> 10 in.)	3
Memorable (> 12 in.)	0

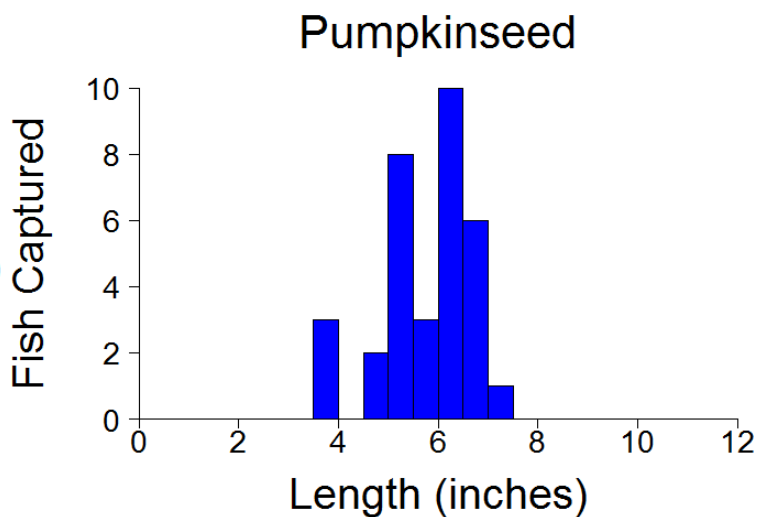


During the early-spring fyke netting survey, yellow perch were captured at a rate of 7.4/net-night. Individuals ranged in length from 3.0" – 11.3" and averaged 6.0". These results suggest that perch are present in low densities, and most of the individuals available are relatively small.



Pumpkinseed Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 6 in.)	52
Preferred (> 8 in.)	0
Memorable (> 10 in.)	0

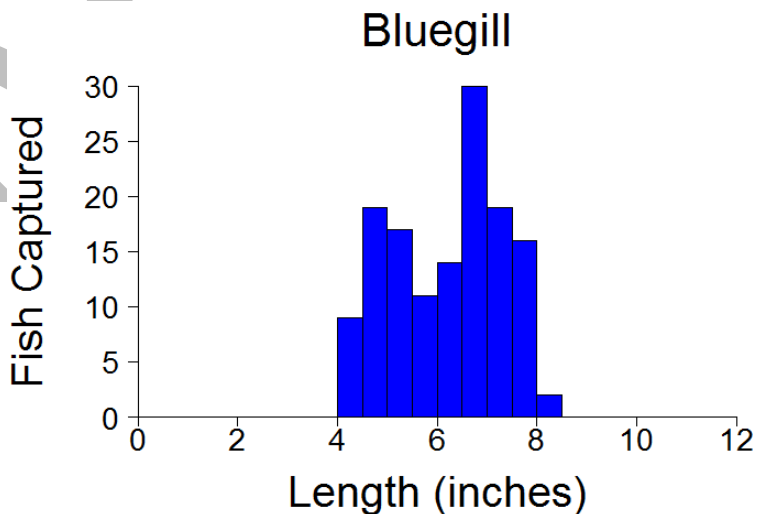


During our targeted late-spring electrofishing survey pumpkinseeds were surveyed at a rate of 19.0/mile. Individuals ranged in total length from 3.5" – 6.7" and averaged 5.5". These results suggest that pumpkinseeds are present in low-moderate densities, and the population exhibits a relatively small size structure.



Bluegill Size Groups (PSD/RSD)

Size Class	% of Sample
Quality (> 6 in.)	59
Preferred (> 8 in.)	1
Memorable (> 10 in.)	0



During our targeted late-spring electrofishing survey bluegills were surveyed at a rate of 40.0/mile. Individuals ranged in total length from 4.2" – 7.5" and averaged 6.0". These results suggest that bluegills are present in moderate densities, and the population exhibits a moderate size structure.

Additional Notes:

Rock bass, brown bullhead, yellow bullhead, white sucker, and shorthead redhorse were also sampled during these survey efforts. For questions or additional results from 2015 survey work contact:

Zach Lawson, Fisheries Biologist, Iron County
Zachary.Lawson@Wisconsin.gov
Phone: (715) 476-7847

Survey Data Collected By: Jim Zarzycki and Zach Lawson.
Analyzed and Report By: Zach Lawson, 12/08/15
Approved for Posting By: Mike Vogelsang, North District Fisheries Supervisor, 2/3/16